Executive Summary of Final Report
Focused Audit of Affiliated Transactions
and Management Audit
of the South Jersey Gas Company

Presented to the:

Division of Audits
New Jersey Board of Public Utilities

By:

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Executive Summary

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I. Introduction

The Liberty Consulting Group (Liberty) conducted a focused and a management audit of South Jersey Gas (SJG), its parent (SJI), and its affiliates for the New Jersey Board of Public Utilities (BPU). The BPU chose Liberty, which has been serving utility commissions for more than 15 years, to perform this audit after a competitive solicitation. Liberty has performed significant engagements for two-thirds of the country's utility regulators and for others in North America.

This audit consisted of four major elements: Gas Supply, Affiliate Relationships, Management and Operations, and EDECA Standards. This document summarizes the audit's major findings and conclusions in each of those four areas. Liberty began the audit in October 2004 and completed it in April 2005, with the issuance of a four-volume final report addressing its methods, findings, conclusions, and recommendations for each audit element. Liberty's audit included responses to about 700 data requests and 100 interviews, along with a number of site visits. Liberty provided draft reports for Staff review, later met with Company officials to review findings, conclusions, and recommendations, and then considered comments provided by the Staff and Company before issuance of the final report.

Liberty commends the BPU Staff for its interest in and support of the audit. Liberty also found SJI, SJG, and affiliate personnel fully supportive of audit needs and activities. Company personnel responded to all requests for data and interviews, ultimately not objecting to any request. Personnel spoke freely to Liberty's consultants, generally with BPU staff members in attendance, about even the most confidential aspects of utility and non-utility operations. Company personnel demonstrated unusual appreciation for the need for regulatory scrutiny over non-utility operations, and an unhesitant understanding of the need to examine the potential for non-utility enterprises to have negative impacts on utility management and operations. Company personnel also spoke with apparent candor about their own sense of gaps or improvement opportunities in areas of management and operation at both high and day-to-day levels.

Liberty's audit produced many recommendations designed to improve gas supply, management, and operations, and to secure greater conformity with requirements and regulatory expectations surrounding affiliate relationships and other EDECA standards. It was encouraging to note the willingness of SJI and SJG to consider change and to demonstrate an apparently sincere interest in working with the BPU to make change happen. Much of the change recommended in Liberty's four volumes can take place strictly internally to the SJI companies. Other important areas, however, may involve reshaping important policy parameters, or (at the least) assuring that SJG and the BPU share common interpretations of them. Where the latter is the case, Liberty has sought to offer constructive suggestions, as the RFP requested, and in a limited number of cases alternatives, without setting forth prescriptive views of public policy, requirements, and expectations. Those are for the stakeholders, not an auditing firm, to establish. Importantly, the existence of a second phase to SJG's recent rate case appears to offer a forum for dialogue among those stakeholders to address some of the policy issues addressed in this audit.

II. Gas Supply

The RFP sought an examination of the following gas-supply activities:

- Procurement effectiveness in obtaining the best possible gas prices for customers
- Optimization of price and reliability objectives
- Overall competitiveness of the third-party supplier market in SJG's territory and SJG's basic gas supply service pricing policies
- Independence of the supply-purchasing function and focus on the best interest of customers
- Interrelationship among SJG and its affiliates and sufficiency of controls in assuring that SJG makes purchases in the best interest of ratepayers.

In order to address these issues, Liberty structured its detailed examination of gas supply into the following task areas:

Organization, Staffing, Controls	Supply Planning	Secondary Market Activities
SOLR Considerations	Services and Pricing	Transporting Customer Gas
Commodity Purchases	Hedging	Affiliate Relationships

A. Organization, Staffing and Controls

Liberty found the overall organization of gas supply appropriate, with one significant exception. Apart from that issue (examining capacity alternatives), Liberty found the Gas Supply Department (GSD) to be structured appropriately to accomplish effective procurement and management of natural gas supplies. GSD employee responsibilities are clear and appropriate and personnel have appropriate experience and qualifications. With respect to the exception, Liberty found that the mission and skill sets of the gas supply function are too narrow. Responsibilities exclude the assessment of needs for delivery capacity and critical examination of options for filling those needs. There is a corresponding lack of technical expertise in these areas in the gas supply function. Liberty recommended an expansion of the mission and skills set of the GSD to permit it to perform critical analysis of capacity alternatives.

GSD has adequate procedures in most areas. Liberty found three areas where improvements are appropriate: providing more structured controls over the receipt and opening of bids, enhancing procedures addressing procurement process details, and requiring employees regularly to acknowledge understanding of and to certify compliance with ethics procedures.

B. Supply Planning

1. Load Forecasting

SJG recognizes the importance of good load forecasting, and performs it in a structured manner, but can make several improvements. First, SJG should retain historical information in a manner that supports analyses to improve future forecasts. SJG needs to make better use of electronic data systems to support this need. Second, SJG should use data that is more current and reflective of known changes in weather trends. Third, SJG's actual gas sendout during the coldest days has always exceeded SJG's forecasts, on occasion by as much as 21 percent. SJG needs to separately analyze daily sendout for its coldest days, adjusted for growth, to improve design-day sendout estimates. Finally, SJG has not recognized changing use patterns for certain customer classes. SJG should include makes a change to reflect recent trends in use per customer in each rate class.

2. Capacity Planning

SJG faces a number of factors that justify its planning focus on peak-day supply capacity. These factors include: (a) the highest growth of any New Jersey LDC, (b) a lack of significant pipeline supply alternatives to Transco, (c) marketplace instability that has caused third-party suppliers, including SJG's affiliate, SJE, to turn back customers when they cannot beat SJG's price for system supply, and (d) unsettled questions about SJG's obligations to back up third-party suppliers as the supplier of last resort. These factors justify SJG's interest in a recent proposal by Transco to expand capacity on the lateral that constitutes SJG's principal source of supply. Nevertheless, Liberty found that SJG did not perform sufficient examination and analysis of its alternatives before committing to the Transco expansion. In particular, Liberty found, as did the last management audit of SJG, that the Company failed to examine with sufficient rigor its, alternatives, which include peaking facilities and demand-management. This failing raises particular concern because of the dominance of northwestern sources of supply on a system experiencing its strongest growth in the southeastern region of the service territory.

SJG's increase in supply on the northwestern portion of the system is costly. It also increases the need for expansion of SJG's downstream system to move gas to areas of high growth. SJG made its decision to increase capacity on the Transco lateral: (a) without making full use of information available about existing capabilities on the Transco system, (b) relying on what Transco represented rather than upon its own independent examination, (c) without structured solicitation of interest from other Transco capacity holders in making capacity available to SJG, (d) without a comprehensive analysis of eastern peaking options on or off customer premises, and (e) without assessing the economic effects of demand-management options.

The additional commitment to Transco will affect system-supply customers directly. It also has the indirect effect of producing revenue-enhancing opportunities for non-utility operations. It increases off-system sales opportunities. The sharing of margins from those sales creates added profit potential for shareowners, while keeping responsibility for the incremental fixed costs of the expansion on system-supply customers. Sharing mechanisms provide incentives to reduce costs, but can have unintended effects. Giving shareowners value from remarketing reserve assets can create an incentive to acquire too many of those assets. Examining the prudence of portfolio design and assembly mitigates this incentive somewhat, but not entirely. There can be a net increase in customer costs if capacity becomes excessive. The portion of the portfolio that exceeds needs will increase net costs of the customers who pay 100 percent of the costs, but get in return an amount discounted by the sharing fraction.

Increased BGSS costs also make it easier for third-party suppliers to compete. SJE, the retail-energy affiliate, is the largest third-party supplier in SJG's territory. Another, more subtle concern arises from the potential, always present in affiliate situations, for preferences to affiliates over third-party suppliers when making excess capacity available to others.

Liberty's conclusions about the Transco expansion do not solely concern added costs to BGSS customers. SJG's decision also increases its control of capacity in a region with limited options. Liberty recommended that SJG be required to demonstrate the cost-effectiveness of the Transco Lateral expansion through the BGSS process before charging customers for it.

C. SOLR Considerations

SJG's planning assumptions require it to accommodate marketer turn-backs of customers to the utility. This approach substantially increases the price that BGSS customers must pay. In effect, BGSS customers must pay for backup capability that benefits the customers of marketers, the largest of which is SJE. This practice has an impact on prices for BGSS customers. SJG recently reduced the amounts of supply it assumes it must stand ready to serve. Design-day calculations now assume that marketers will make all deliveries to their industrial customers and 59 percent of deliveries to their residential and small commercial customers. SJG still maintains the same asset pool despite reductions in the load it assumes it must be prepared to serve. Its approach to SOLR issues brings higher total-market costs, because SJG maintains under-utilized assets.

A further subsidy arises from how SJG addresses marketer DCQs. Marketers provide for a stated DCQ on a monthly, not daily basis. This approach assumes in effect 100-percent-load-factor markets, and thereby allows marketers avoid addressing daily swings. SJG's approach requires it to take on the burden of addressing these swings. Consequently, BGSS customers must bear their own costs for this *service*, and those of customers who take supply from marketers.

D. Capacity Management: Transferring Supply Assets to an Affiliate

SJG has been contemplating a transfer to an affiliate ownership of supply assets and the responsibility for supply delivery. After several years the affiliate's duty to serve SJG would presumably end. This approach assumes that a robust market will offer SJG a range of choices. Liberty does not have confidence in relying upon this assumption. Pipeline capacity and storage in the SJG region must still be considered a limited and perhaps scarce resource in many areas.

Giving an SJG affiliate or third party the right to market the assets to others after the requirement period could leave SJG competing for scarce resources. Gas is likely to remain available to SJG; however, a capacity-constrained market could produce prices substantially higher as the utility competes for resources that it used to own. Liberty did not, however, rule out an asset-management or agency-type arrangement with a third party. SJG would retain title to the assets and could free itself from a disadvantageous relationship within a reasonably short time.

Liberty recommended that the alternatives to dealing with supply assets in general, and reserve capacity in particular, be addressed in the current phase of SJG rate proceedings. Liberty set forth a number of alternatives and discussed the strengths and weaknesses of each, in comparison to continuing ownership and operation under SJG directly:

- Adjust the SOLR Obligation: relieve a portion of SJG's responsibility in return for either (a) adequate third-party supplier assurances of primary firm delivery rights to SJG's city gates, or (b) customer subscription to a back-up supply service that would provide supply if their suppliers failed. This option would leave SJG with considerable excess supply capacity to sell in a series of long-term, non-recallable releases.

- The PSE&G model: transfer utility capacity rights and obligations to a non-utility affiliate, who then enters a full-requirements contract to provide the supply resources necessary for the utility to provide Basic Gas Supply Service (*BGSS*). The affiliate takes all responsibility for the cost of the various gas-supply resources in the transferred portfolio and the risk for recovering the costs of those resources.
- External Asset Manager: generally operate under one of two alternative types of arrangements. One involves payment of a fee by the manager, who takes control of the asset portfolio, works to maximize returns, and generally shares margins returns above some threshold level. Second is an alliance, under which the asset manager and the LDC work together in pursuit of maximum returns.
- Hybrid Options: SJG continues to manage a portfolio sized to BGSS customer requirements and remarkets excess. Third-party marketers provide proof of primary firm delivery rights to SJG's city gates or subscribe to back-up service. Marketers take a proportional assignment from SJG or obtain their capacity elsewhere, but their delivery rights must be primary firm at SJG's city gates. Remaining capacity in the current portfolio is put out for bid annually to external asset managers.

Liberty concluded that producing a competitive market requires all firm customers to share equitably in the cost of ensuring capacity availability on peak days. Marketers should hold firm winter supply to the city gate through purchasing utility assets, purchasing utility backup service or making a suitable demonstration that a marketer's other supply sources are reliable. There is also a need to protect against marketer withdrawal from the market, whether for voluntary or involuntary reasons, such as bankruptcy. There should be a mechanism allowing marketer capacity dedicated to SJG customers to remain available to those customers if they return to SJG. One option would use a recent FERC ruling permitting marketers to commit to a prearranged leaseback of capacity upon withdrawal from the market. Such a mechanism may not be foolproof; therefore, it can be supplemented by some level of reserve margin and the ability of SJG to purchase gas at market and by partial reliance on the marketplace.

E. Secondary Market Activities

LDC secondary-market programs of capacity releases and off-system sales are important in making effective use of capacity. SJG's secondary-market program is uncharacteristically large; it exceeds by a sizeable margin the size of its on-system market. SJG's capacity releases and off-system sales are much larger than those of the other two New Jersey LDCs -- more than twice as large as those of ETG, and half again as large as those of NJN. SJG has been very effective in using its capacity portfolio in secondary-market transactions to generate considerable margins; however, its program may have reached a sized that devalues its capacity. Maximum capacity-release volumes have increased since 2000-2001, while average revenue per Dth/day of capacity released has slightly decreased, despite the upward trend in natural gas sales prices.

Retaining capacity in amounts SJG has accumulated creates a barrier to competition. Annual and seasonal releases involve few counter-parties, with whom SJG generally negotiates releases privately. Industrial-customer and marketer representatives expressed to Liberty concerns about access to SJG capacity. The potential for favoritism to SJRG and SJE, affiliates that conduct wholesale and retail gas purchases and sales in the service territory, underscores the need for attention to the capacity SJG holds and how SJG uses it.

SJG's remarketing of assets is not sufficiently open and transparent. SJG makes no postings on pipeline bulletin boards, and only general statements of availability on its website. SJG does not provide details enabling others to assess the economics of potential purchases in a transparent manner. SJG does not take significant initiative in notifying the market about available capacity. SJG relies on the concept that others know that SJG has capacity and will call if they need it.

F. Affiliate Supply Transactions

Liberty compared the transaction-tracking capabilities of SJG and its wholesale marketing affiliate, SJRG (which uses a system called *RADAR*). These systems allow for independent examinations of the arm's-length nature of dealings among affiliates. Liberty eventually did, with difficulty, secure information needed to determine whether SJG suffered disadvantage or exploitation in sales or purchases for system supply or off-system sales. Liberty found that it did not. Transactions of SJG that compared to those of affiliates showed no pattern of price discrimination. SJG should adopt a transaction database with similar capabilities to those of *RADAR*, in order to better support Company and regulatory evaluations to assure that even-handedness continues to characterize gas-supply dealings among SJG and its affiliates.

G. Services and Pricing

SJG's tariffs reflect years of changes and developments in the industry, in New Jersey, and at the Company. SJG tariffs have generally responded adequately to those changes. There exists, however, a need for SJG to review and amend tariffs to improve technical consistency and administrative clarity. Special contracts or negotiated rates have become for SJG, as expected, an important means for preventing bypass. SJG's approach in negotiating special terms and conditions has been responsive in assuring that the Company does not lose customers that can still provide a contribution exceeding variable costs of service. SJG should nevertheless adopt a general set of guidelines for assuring generally consistent treatment of such customers and for providing support to those responsible for negotiations.

Liberty found SJG's BGSS appropriate in allowing recovery of gas costs and identifying a *price to compare* for marketers and customers. The BGSS, however, contains a number of timing differentials and other factors unrelated to market price. This aspect of SJG's BGSS makes market development problematic. For example, including the cost of gas in storage can cause BGSS to differ significantly from a market price. Other factors that can have this effect include:

- Reconciliation of the prior year's gas costs, which can increase or decrease the price
- The netting of the Company's hedging activities, which can increase or decrease the price
- Pipeline refunds, which would always decrease the price
- Ratepayer share of margins from off-system sales, possibly offset by other cost elements, which would decrease the price.

Liberty plotted SJG's BGSS rate against market prices and SJG's weighted average 2003 and 2004 cost of gas (WACOG). The latter two remained fairly close. SJG's BGSS, however, ran substantially above market prices, with a notable exception in early 2003. Extra costs in the BGSS rate make it easy for marketers to beat most of the time, but not always. Marketers generally do not buy gas in a production area and move it to market via transportation (as a utility would do). They generally secure gas in the market area. The rational strategy for a small marketer is to await the BGSS resulting from SJG's filing and its review. Then a marketer can determine whether it can acquire supply that will allow an opportunity to beat SJG's price.

Recent circumstances highlight the problems that the SJG BGSS cycle presents for marketers and for SJG's own supply planning. Marketers, including SJG's affiliate, SJE, sometimes turn back thousands of mass-market customers to SJG. This cycle makes it difficult for marketers to operate on a planned, long-term basis. It is natural that they tend toward an opportunistic approach that is likely to cause market development in SJG's territory to experience rolling waves of increase or decrease in the number of customers served by marketers. Continuation of significant and unpredictable price volatility in the gas market may frustrate market-opening goals, given the low margins in the mass market compared with the costs of securing customers.

Acquiring a customer requires a significant, up-front cost. A marketer must attract the customer, overcoming inertia and the fear that gas service may be less reliable. Marketers generally must provide either a discount from the utility's rate or a service not offered by the utility. A marketer must generally hold a customer for a year or so to recover that cost.

H. Transportation of Customer-Owned Gas

Success in developing a competitive market requires that an LDC act without discrimination in transporting gas for the customers of marketers. It also requires that LDCs provide the added coordination required when another party serves end users. Liberty found that SJG has acted responsibly and effectively in supporting the administrative needs for developing competition in its service territory. The number of marketers in SJG's territory is comparable to what other New Jersey LDCs are experiencing. Overall migration to third-party suppliers in SJG's territory (35 percent) is quite high when compared to Northeast and to national benchmarks.

Liberty observed a number of positive attributes at SJG:

- Full market opening – retail competition is available to all customers
- Switching ease– customers can move easily between BGSS and marketer service
- Customer awareness of the availability of retail competition appears to be high.

SJG's affiliate SJE has been unusually successful in gaining market share in SJG's territory, serving 82 percent of migrating residential customers and 72 percent of small commercial customers. In all remaining categories, which include the larger customers, SJE holds a 62 percent market share. It is unusual for an LDC affiliate to hold such a large market share.

Marketer performance in SJG's territory has been highly reliable. No one could recall an instance in which a marketer failed to deliver gas as required. SJG offers customers a particularly strong source of protection. Almost any customer may return to utility supply at any time. In addition, since the gas will continue to flow in any event, there will be no disruption of supply. SJG's largest industrial customers comprise the one possible exception to this *back-stopping* by the utility. SJG no longer includes their needs in its design-day calculation, thereby excluding consideration of their possible needs during peak demand periods.

Further development of competition in SJG's serving area will likely depend much on what happens in PSE&G's market. Retail competition is developing slowly in New Jersey outside SJG territory. Migration to third-party suppliers in New Jersey in other parts of the state lies now at approximately two percent of the customer base. A marketer can reach over a million and a half of the state's customers in PSE&G's relatively compact geographic area, and in largely in the same media area. Without it, marketers must operate in a wide region to reach only just more than a third of that number of customers. Gas supply is a low-margin business. It takes the economies of scale that come with a large customer base to be successful. Thus, for competition to grow in SJG's territory, in all likelihood it must be successful in PSE&G's territory as well.

SJG's operational point of contact with marketers works reasonably well on an overall basis, and is sufficiently *marketer friendly*. A sampling of marketers indicates that they generally have found SJG personnel to be knowledgeable and cooperative. SJG employees appear to recognize that they are in an operational partnership with marketers and endeavor to keep things running smoothly. One problem in the relationship, however, is that SJG's transportation administration relies too heavily on manual or antiquated systems, which tends to inhibit its responsiveness. An effective market requires accurate, timely and efficient information flow. One active marketer indicated an unwillingness to expand its operations in SJG territory due to the level of paperwork and the time-consuming nature of the interaction with the Company. A second matter requiring attention is that SJG does not provide marketers with a sufficiently structured set of instructions and procedures for dealing with the Company.

I. Commodity Procurement

Liberty conducted a detailed review of SJG gas procurement across the eight-year audit period. SJG began the period relying almost exclusively on long-term commodity contracts, and then gradually began to introduce shorter-term purchases in 1997. SJG began a major commitment to shorter-term purchases in 2001, as it allowed long-term contracts to expire. SJG instituted a *winter RFP* process for securing some of the gas needed for the winter season. That process now produces about 20 percent of SJG's total purchases. SJG replaced long-term contract purchases outside the winter period (*i.e.*, from April through October) in major part through monthly agreements. About 60 percent of these purchase quantities go to storage injection; the remainder meets ongoing summer demand. SJG then makes daily purchases to meet any needs imposed by variations from *normal* weather. SJG also makes purchases to support off-system sales. SJG has purchased on a monthly basis virtually all of the gas used for such off-system sales. To summarize the major changes in commodity procurement over the eight-year audit period:

Central to SJG's movement toward purchase commitments of shorter duration has been the expiration and the renegotiation of long-term contracts. From 1996 through 2004, SJG reduced the percentage of long-term gas taken from 98.1 to 0.2 percent of total purchases. Only two long-term contracts remain. Both expire October 31, 2006, but have annual extension provisions.

- Long-term contract purchases decreased from virtually all to almost none of the total
- Winter RFP quantities grew to about 20 percent of total purchases
- Spot quantities have increased from very small levels to about 80 percent of the total.

SJG contracted for more supply flexibility than it needed, and at a cost, during most of the audit period. From 1996 through 2000, SJG did not use from 40 to 80 percent of its available swing rights. Neither did JG use to any meaningful degree take-or-release privileges on long-term contracts. Liberty also concluded that SJG historically demonstrated a bias for supply security (through redundancies) over economy in its efforts to optimize reliability and cost objectives.

SJG has significantly improved the level of its quantity flexibility options by reducing some of its supply redundancies. Liberty nevertheless recommended that SJG more rigorously examine, its current flexibility options, including storage, before committing to new take-or-release rights. Despite achieving economies by reducing reliance on long-term contracts, SJG should also continue testing the market for longer-term supply, to continue validating the economy of its current supply mix. Third, Liberty recommended that SJG establish more tangible price objectives in making future long-term commitments and in the conduct of its RFP procurements

Liberty found the RFP process to be an effective means for meeting winter-season needs. An examination of bids received; analyses of them, and decisions made found the process responsive to a wide range and variety of suppliers, mindful of supply-flexibility needs, competitive, and fairly administered. SJG reached sound procurement decisions, with one exception where SJG made an honest failure to communicate timely with bidders. Liberty recommended, however, that SJG improve its procedures and other documentation to provide more control and greater detail about the conduct of the process and the criteria used in evaluating bids. Liberty also recommended that SJG optimize cost by reducing take-or-release quantities and by exploring the use of multiple RFP issue dates for winter RFP purchases. Liberty also recommended improved analytical tools to better support after-the-fact analyses of winter RFP procurement effectiveness, and more clearly structure and document its process for evaluating bids.

Liberty found that SJG has made effective use of the liquidity in the market to increase spot purchases over the audit period to 80 percent of total requirements. Despite such strong reliance on spot purchases, however, SJG has succeeded in avoiding any excessive *scrambling* to purchase winter gas, and any *churn* of excessive quantities. SJG controlled spot purchases effectively and in accord with its policy guidelines. The GSD traders tended to focus on finding and settling on deals at market prices from reliable counter parties. Liberty did not feel that there was enough emphasis on shopping around for market-beating prices. SJG promotes reliability of supply, however, by dealing with a diverse set of potential suppliers that it has credit/risk qualified, that have proven to be reliable, and that are geographically diverse.

J. Hedging

SJG's hedging program's objective is to achieve commodity *price stability*. As affirmed in the stipulation in its rate case, SJG operates a hedging program that includes a non-discretionary element that mitigates price volatility through fixed amounts of NYMEX contract purchases. SJRG carries out the non-discretionary part of the program. This affiliate brings adequate expertise, which SJG would find difficult to replace were it to perform the activities internally.

Recently, SJG initiated a discretionary hedging program component. It uses a proprietary trading system called *Planalytics* to relate gas-price movement with weather conditions. The model compares a forecast of future price behavior with current NYMEX futures prices over the next

18 months to produce a *buy/don't buy* recommendation based on comparing actual futures prices to those predicted by the model. SJG, not SJRG, conducts this non-discretionary component. Liberty recommended that SJG employ the expertise of SJRG in this program element as well. There is an executive-level risk-management committee whose membership and roles provide a suitable framework for controlling risk. Liberty found that SJG has operated its financial hedging program under objectives and strategy consistent with what the BPU approved. The initiation of the program's discretionary element promises to provide further benefits in reducing price volatility for system-supply customers. SJG has identified the scope of the hedging program and the specific means for accomplishing goals. SJG has appropriately limited the scope of trader discretion in both the discretionary and non-discretionary elements of the hedging program. SJG's non-discretionary program has produced customer benefits that would not have been achieved without the program. Its design and implementation will smooth the inevitable spikes in the gas markets, and it is a very simple program to operate.

SJG has appropriately set price stability as the hedging program objective, but has stated it only generally. A more meaningful objective would be to say the Company would not allow its commodity price volatility to exceed a given percentage, or a range of percentages. An alternative would be to say that the Company will institute price stability measures if commodity price volatility exceeds a given percentage over a defined time. SJG financial hedges have been of the type and at the levels called for by the non-discretionary element of its approved program. The use of NYMEX futures as the predominant element of SJG's hedging transactions is appropriate. Liberty concluded, however, with the beginning of use of the discretionary element, that scheduled non-discretionary transactions would better support dollar-cost-averaging.

III. Cost Allocations and Affiliate Relationships

A. Summary of SJI Affiliates

SJI is an exempt holding company under the Public Utility Holding Company Act of 1935. SJG comprises SJI's largest business unit in terms of profit contribution, revenues, assets, and employees. Apart from some discontinued enterprises, SJI has five major subsidiaries:

- South Jersey Resources Group, LLC, *(SJRG)*: started in 1996 and sells natural gas at wholesale and natural-gas related services to utilities and marketers of fuel
- South Jersey Energy Company *(SJE)*: organized in 1973 and sells natural gas and electricity and energy-market services to end-users; *i.e.*, at retail
- AirLogics, LLC *(AirLogics)*, a joint venture with GZA GeoEnvironmental, Inc. AirLogics formed in 2000, and providing environmental monitoring devices and services associated primarily with site remediation activities (SJE holds SJI's 50 percent interest)
- South Jersey Energy Service Plus, LLC *(SJESP)*: formed in 2004 as a wholly-owned SJI subsidiary, and providing and servicing gas-using appliances for consumers (prior to August 2004, the SJG operated service portion of the business)
- Marina Energy LLC *(Marina)*: formed in 2000 and developing, owning, and operating projects that supply thermal and electrical energy to large commercial and industrial end-users
- Millennium Account Services, LLC *(Millennium* or *MAS)*: formed in 1999 as a joint venture with Conectiv Solutions, LLC (owned by Pepco Holdings) and providing meter-reading services in southern New Jersey to Atlantic City Electric and SJG, the two largest utilities in the area.

SJG and its affiliates provide services to each other in the interest of avoiding duplication of work and minimizing costs. SJG and SJI have divided between them most common service functions. SJI has generally kept the functions appropriate to corporate governance at SJI and those that primarily support utility operations at SJG. The services element of SJI takes about a third of its employees. Most of the remaining SJI employees exclusively serve non-utility entities, such as SJE and SJESP. The common services provided by SJI include:

Mkt. Planning/Forecasting	SJI Accounting	Risk Management
Counsel/Secretary	Internal Auditing	Investor Relations
Finance	Government Relations	Planning

The common services provides by SJG include:

Corporate Communications	Property Management	Materials Management
Engineering Services	Rates	Regulatory Affairs
Information Systems	Customer Care Center	Environmental
SJG Accounting/Tax	Insurance	Human Resources

These SJI and SJG departments providing common services developed service plans. The plans provided qualitative and quantitative information about how these functions support the operating business units and other support functions, but were not consistent in details.

B. Cost Allocation Manual

SJI's cost-allocation manual *(CAM)* provides the policies and procedures on distributing costs among subsidiaries and a reference manual for employees. SJI issued its first CAM in December 2001. It has since updated and changed CAM contents, reissuing the document in September 2004. The CAM includes more than mere compilations of policies and procedures. It contains memoranda, analyses, and invoices that serve as models, documentation, examples, and instructions on how to distribute costs among affiliated businesses. SJG has the primary responsibility for maintaining the CAM. The CAM contains sections addressing the provision of services by SJG to third parties (*e.g.*, marketers) who use SJG's utility-type services.

Liberty found the CAM to be adequate. It provides more than sufficient detail, and addresses many topics with more specificity than other CAMs that Liberty has reviewed. SJI's accountants appropriately treat it as a work in progress. It is not up to date in all respects, but not to a degree likely to cause problems. SJI has generally sought to be careful about the details of distributing costs among affiliates, and has paid attention to the use of more direct allocators, which is important in reducing the use of a "default" general allocator for distributing administrative and general costs, and in promoting consistency between cause causation and cost responsibility.

C. Development and Use of Cost Factors

Labor and benefits generally comprise the largest cost type distributed among affiliated companies. It is commonly accepted that it is preferable to assign to the greatest extent practical labor costs specifically to the department for whom work is done. Direct billing of hours or of hourly rates generally comprises the method for such direct charging. SJI's CAM describes the hierarchy of preferred methods for distributing costs, and requires employees who provide services to other SJI companies to record their time in a manner that supports billing other entities. The CAM also describes how to calculate *loadings*. Loadings apply to the hours as an additive factor, which assures that benefiting entities bear the costs of payroll taxes and fringe benefits, in addition to the direct cost of salaries. SJI does not, except for information services employees, bill the cost of non-productive time of employees who serve other affiliates. It includes an estimate of that cost in the loading-factor calculation for hours that it does bill.

SJG develops its operating and capital costs for vehicles, and distributes them to users through an hourly rate. Leasing of SJG vehicles by affiliates is limited to SJESP. Even that use is diminishing as SJESP makes its own arrangements as existing leases end. The hourly rate for vehicle use by SJESP includes depreciation on vehicle assets, but does not include a return on the remaining investment in the assets.

Liberty found that SJI reasonably distributes employee-benefits costs, but oversimplifies charges by using an average hourly rate for all employees. Combining the costs of different employees into a single factor produces overcharges for lower-paid employees and undercharges for highly paid ones. The significant magnitude of the loader likely equals or exceeds hourly wages at the lows end of the range. At the high end, the loader may add only insignificantly to direct costs for salary. SJI should seek to develop different overhead rates for differing classes of employee.

Liberty also found that the component of charges compensating SJG for the use of its money for leases of offices and equipment does not currently include the effects of federal and New Jersey corporate taxes. SJG acknowledged that it earns less than its allowed rate of return on assets under the current use of an after-tax rate. Charges for building space do not include any return on investment at all. SJG needs to correct its calculation of investment cost to assure that it uniformly includes a return on investment and accounts for income taxes.

SJG uses its rental charge to cover employee overheads other than benefits. This approach simplifies the process of distributing and collecting these types of costs, but it must be comprehensive in the costs it includes. SJI needs to revise its charging methods to assure inclusion of costs for items such as furniture, personal-computing equipment and information-systems charges, vehicle usage, and insurance other than for property. SJG also needs to revise charges to assure that users of customer-care-center and mailroom services pay fairly for nonproductive time, benefits, rent for office space, vehicles, equipment, office furnishings, supervision, internal services (such as those for information systems), and the carrying costs of all assets used, including a provision for the return of and return on capital.

D. The Corporate and Fiscal Expense and Management Service Fee

SJI generally charges affiliates directly by the hour for many services, but uses a different approach for two particular cost types. SJI uses its *Corporate and Fiscal Expense* to allocate costs to affiliates for the governance and financial functions of investor relations, shareholder records, secretary, external relations, government relations, and professional services. SJI uses its *Management Service Fee* to allocate certain residual or indirect costs that benefit all affiliates, but cannot be attributed to a particular affiliate or activity sufficiently to allow hourly billing.

SJI uses a *three-tiered* (three-part) allocation method to distribute these two categories of costs to affiliates. This allocator equally weights each subsidiary’s assets, payroll, and margin as of each June 30. SJG’s share of the costs distributed by this allocator fell from 88.0 to 80.1 percent between 2002 and 2004. Both recent history and existing plans show higher non-utility growth rates when compared to utility growth. This trend will therefore continue if the pattern of non-utility growth continues, as SJI currently forecasts it to do. Averaging the three size-based measures substantially improved SJI’s past practice of using assets alone as the allocation factor. Liberty found that the SJI allocator’s measures of relative affiliate both fair and similar to those used by other utility holding companies. Liberty also found the types of costs that SJI distributes under this allocator to be typical.

Liberty reviewed the workpapers for calculations of the allocation factors for 2002 to 2004. They evidenced accurate, consistent calculation of the three-part factor, with two exceptions. First, SJI calculated the payroll for a different time period than it applied for the other two elements. Second, even where an affiliate leases assets from another, it does not get charged the asset value in calculating the three-part allocator. Those asset values remain with the owning company. Because SJG owns a disproportionate share of the assets rented by other affiliates, this approach assigns too many costs to the utility. SJI should move to a consistent time period for the calculation of all three elements of the three-part allocator and it should include the net book value of assets leased among affiliates to the entity enjoying renting them.

E. SJESP Costs

SJG's customer care center *(CCC)* answers overflow calls for SJESP, which has its own separate telephone room in a non-SJI building. Liberty found that SJG has generally paid attention to assuring that the appliance-service business pays its fair share of costs for this service, apart from generally applicable gaps such as those addressed above.

Liberty examined how SJI and SJG recorded costs for transfer of the appliance-service business to SJESP. SJI/SJG's accounting for the time of a number of resources (employees and outside resources, such as a law firm) dedicated to the transfer did not match who would ultimately be benefiting from the transfer. All of the costs instead were assigned to SJG. The proceeding did involve a regulatory matter, but one that was aimed at benefiting non-utility operations. Liberty found this example illustrative of the need for SJI and SJG to be more vigilant in identifying the company or companies who derive primary benefit from activities that involve SJG.

F. ESOP Tax Savings

SJI has realized tax benefits from its employee-stock-ownership plan *(ESOP)*. SJI has retained all those benefits at the holding company level; *i.e.*, it has not distributed or pushed them down to SJG or other subsidiaries. SJI's CAM policy is to compute each subsidiary's tax obligation on a standalone basis, and then incorporate individual results into SJI's consolidated returns. Utility holding companies generally *push down* tax benefits to subsidiaries. Similarly, they distribute other costs to their subsidiaries. For example, SJG bears its ratable share of the cost of functions such as shareholder records, as it should, even though shareholders own stock in SJI, not SJG.

SJI budgeted its combined state and federal-income tax ESOP benefits for 2004 at a total of $985 thousand. Liberty concluded that SJI should distribute this tax benefit to its subsidiaries using an allocation factor that reflects the relative contribution of each subsidiary to the ESOP benefit. Liberty used common equity as a proxy that would give some indication of the value of this benefit to SJG. End-of-year 2003 values for common equity would yield an allocation percentage of 92 percent for SJG, or $902 thousand for that year alone. SJI terminated that plan as of October 1, 2003. The 401(k) plan will continue, however, and will provide tax benefits. The tax benefits that SJI enjoys from the 401(k) program should also be shared with SJG in a manner that recognizes its contribution to their existence.

G. MSI Northeast

Measurement Solutions International - Northeast LLC *(MSI Northeast)* is a joint venture between SJI and Measurement Solutions International. SJG and MSI Northeast entered a five-year agreement in 2001; MSI Northeast assumed responsibility for buying, managing, monitoring, and maintaining SJG's gas meters, regulators, and gas-volume indicators. SJG pays MSI Northeast a monthly fee, and reimburses actual costs and certain procurement expenses incurred by the vendor, in which SJG's parent has an ownership interest. The analysis of the financial advantage of outsourcing its meter shop to MSI Northeast showed that SJG would save $93 thousand cumulatively through 2004. . The analysis also projected dividend payments (not to SJG, but to SJI of $826 thousand), among other qualitative benefits.

The outsourcing produced some savings when last measured in 2002, reduced SJG's payroll, and avoided the need to invest in new meter/regulator test equipment. Liberty did not find SJI's outsourcing of its meter shop to be operationally unwise. Liberty did question inserting an economic interest for SJI into what was a utility operational transaction. The potential for dividends, not yet realized, relates to SJG's objectivity. It made the significant concessions. Any value in the dividend opportunity given to SJI should have gone to SJG. SJI made only a small capital outlay; the vendor did not need capital or risk-sharing to make the agreements a good business decision. One would expect that the service provider would have been equally happy to give SJG a lower price, in lieu of taking on SJG's parent as a business partner.

SJI/SJG made this decision without putting the contract out for bid. Absent a process of soliciting proposals, whatever method was used to determine the pricing basis between SJG and MSI Northeast is open to question, much as was the case with the creation of Millennium Account Services. A deal of this size should have been negotiated at arms-length. Therefore, Liberty recommended that SJG bid the next meter-shop services agreement. Moreover, given that this is the second contracting away of mainstream utility functions in circumstances that created profit potential for the parent, Liberty also recommended that SJG enter no more relationships in which an SJI company or related company provides utility-type services to SJG absent prior explanation to and approval of the BPU.

H. Distribution of Audit Fees

In deciding what areas of costs to test for the reasonableness of assignment and allocation among affiliates, Liberty chose to examine independent accountant fees, which have been substantial and increasing lately, in major part in response to Sarbanes Oxley Act compliance need. SJI uses budget figures for each subsidiary (supplied by the independent accounting firm) as the basis for directly assigning charges to each affiliate. The firm renders separate bills that are paid directly. Work associated with the 10-Q constitutes an exception to this method. SJI receives a separate bill for such work, and divides its costs evenly between SJG and SJI because there are two 10-Ks. In addition, SJI has distributed the cost of work done to comply with the requirements of the Sarbanes-Oxley Act under the three-part allocator. Liberty found the approach, methods, and determination of the apportionment of these costs to be reasonable and appropriate.

I. Distribution of IS Department Costs

Liberty also chose to test the distribution of costs of SJG's Information Systems *(IS)* department, because it involves large costs, does work for SJG, its largest customer, and works for other SJI companies as well. Liberty found that the IS billing processes captures the most important costs, but is still not comprehensive, and relies too much on manual processes. SJG has processes for billing other SJI companies and third parties for IS services. The billing rates include direct labor, the cost of non-productive time, employee benefits, and measures of the cost of using IS equipment. IS does not charge affiliates for its rent, insurance other than property, and return on assets. Introducing the Lawson system has created the need to determine which units use Lawson modules, so that SJG can distribute the associated charges correctly.

Liberty recommended that IS billing be improved (by adding the missing charge components) and simplified with the use of new tools made available by introducing the Lawson system.

Liberty also recommended that SJG take measures to assure accurate identification of and charges for use of Lawson system modules.

J. Management Reporting and Analysis of Affiliate Costs

Management reporting and analysis of the distribution of costs among companies is insufficient, and the resources devoted to managing the distribution of costs are small. The complexity of Company cost structure, the mixture of corporate functions provided commonly, and the split of service functions between SJI and SJG make straightforward analysis of the budgets and actual expenditures of SJI and its parts complicated. There has not been clear and useful reporting and analysis for non-financial managers. SJG's new Lawson system provides the capability to report useful information by *cost centers*, but neither SJI nor SJG has developed standards reports to take advantage of this capability.

SJI and SJG do place emphasis on trying properly to distribute costs among subsidiaries, but devote insufficient resources to assuring that the methods used meet regulatory needs and provide managers information that they need to manage affiliate costs like they are expected to manage other costs. SJG needs to add a full-time equivalent accounting person whose primary responsibility will be to examine affiliate relations and the distribution of costs. Inter-company invoices also require additional detail. They do not provide a standalone explanation of what the costs are and why they have been incurred.

K. Testing of Time Distribution

Liberty conducted an examination of time charges of selected groups and individuals to supplement the more focused examinations of particular issues discussed above. This review noted some anomalies that indicate the need for assuring attention to detail in assigning time directly or through the use of pre-assigned factors. However, none of these anomalies raised significant concerns about the subsidization of non-utility operations.

IV. Management and Operations

A. Governance

1. Compliance with Public Requirements

SJI moved promptly to identify stock-exchange and Sarbanes-Oxley Act (SOX) requirements that required action, and formulated a comprehensive plan and schedule to address them. The Company made effective use of its independent accountants and other expertise in identifying requirements, formulating plans, identifying compliance tools, and structuring plans that would comprehensively meet requirements and deadlines for action. Board members have exercised leadership over compliance efforts, and have remained actively involved. Audit committee members in particular understood the key compliance activities under their sponsorship.

SJI has adopted effective tools to assure that controls undergo comprehensive, timely evaluation, change, and certification. SJI has also adopted required procedures for handling complaints, but without specifying how they will be kept confidential for complaints relating to management. The directors should establish an independent source for receipt and investigation of concerns or complaints for persons who may be deterred by the involvement of management in the process.

2. Governance Structure

SJI has developed a split board structure that places half of its holding company directors on the SJG board and half on the board that oversees non-utility operations. This structure supports an effective, continuing, and dominant focus on utility operations. The SJG board members have relatively longer tenures, which makes its members relatively more familiar with utility operations and needs. The recombination of these same directors to form the SJI board similarly constitutes an effective means for allowing the proper integration of utility and non-utility strategies, plans, resource requirements, and activities into a cohesive whole.

Parent, utility, and non-utility committees have common membership and meetings. Committee structure comports with public requirements and the scope of operations of SJI and SJG. The required committees exist, and have responsibilities for the functions required of them. The use of a Management Development Committee reflects a substantial commitment to make change and improvement in how SJI identifies existing and future management needs and structures a comprehensive performance management program. The committee charter documents establish clear and proper roles, missions, responsibilities, and resources for each committee.

SJI has been increasing the power of board members to take the lead in recommending committee chairs and members to the full board, but there remain indications of insider director influence. The Nominating and Governance Committee recently took this role, but corporate governance guidelines continue to specify a consultative role for SJI’s chairman and the CEO. The committee should be able but not required to consult with these two inside directors, or whomever else they consider appropriate. Similarly, the Executive Committee’s charter gives it duties that should fall to the full board and that it appears not to exercise in any event. These powers include the ability to alter governance documents, and make key securities and financial decisions. Governance documents require change to conform them to current intent and practice.

Committee members and chairs have the backgrounds necessary to carry out the responsibilities of their committees. Chairs tend to have relatively lengthier tenures, which gives the advantage of their company experience. The backgrounds of the chairman and the CEO are complementary, and help to assure continued focus on utility operations. The split of chairman/CEO roles reflects an effective management succession process at SJI. The continuation of the former CEO as chairman has allowed SJI and SJG to make an effective change in leadership.

3. Special Audit Committee Requirements

The structure and governing documents of the Audit Committee give it sufficient independence, and its operations have shown strong attention to short-and long-term Company priorities. The members are all outside directors. The committee has been active in setting its agenda, determining its information requirements, setting the format required for outside and internal audit reports, selecting the independent accountants, determining audit fees, and limiting other work by the auditor. The Audit Committees' actions have shown engagement in the right kinds of issues and at the right level of detail. Committee membership includes a number of long-standing board members and newer members with strong financial experience.

The Audit Committee has direct responsibility for the appointment, compensation, retention and oversight of the work of the independent accountants. It has not, however, undertaken formal consideration of alternative firms for providing independent accounting services for too long a time. Outside fees have been rising substantially. Periodic solicitation of proposals from other firms remains an important way for assuring that services are provided at best cost.

4. Board Composition and Member Selection

The SJI and SJG boards are sized to operate effectively. They consist of senior, experienced individuals with a collective predisposition for questioning and challenging management, while maintaining an atmosphere conducive to prompt, collegial, and effective decision making. As the board recognizes, adding utility industry experience is important. There are a sufficient number of independent directors on the boards. The boards of SJI, SJG, and its non-utility entities have expanded their skills and backgrounds over recent years. The boards have added substantial financial and controls skills, but, as they recognize and are committed to addressing, continue to lack sufficient gas industry expertise. SJI should make the addition of industry experience a priority in board member recruitment. Experience in gas transportation and storage, trading, LDC operations, and state-utility regulation comprise particular areas of importance.

Consideration of potential director conflicts has not led to a compromise in the overall independence of the board, but SJI does not employ a sufficiently rigorous standard. Moreover, even though no near-term changes are needed for this reason, the failure to provide for director departure other than through retirement is not a good policy. SJI should emphasize now its long term plan to encourage more frequent rotation in directorships. Historically, director candidate identification was largely within the province of the CEO of SJI, but over recent years, the board has taken a more substantial and a sufficient role. The adoption of a Nominating and Governance

Committee and the structure and role it has adopted and carried out fully support the board's lead role in director candidate selection. .

The boards use effective means to identify interconnections having the potential for compromising director independence. However, business connections between the enterprises where directors work and SJI have reached the threshold where concern should begin. SJI should adopt a lower threshold for the level of business dealings permitted with enterprises with which board members are associated. It now uses New York Stock Exchange guidelines.

5. Board and Committee Operations

Board and committee meeting frequency and length have been sufficient to allow dialogue, interaction, thoughtful review, and informed decision making. The corporate secretary has regularly issued agendas and schedules, supported by pre-meeting packages that support full discussion of matters requiring board attention and of background or emerging issues. Board members demonstrated attention to reviewing prepared materials and preparing themselves adequately for coming meetings. The board has focused on a sound set of issues, has closely followed major projects and schedules, and in general demonstrated strong *engagement* in performing their roles. The board has access to and makes use of information communication channels to support dialogue between the members and between members and management.

The board's plan for three meetings of the independent directors is sound, but the corporate governance guidelines do not conform to how it should operate. The guidelines should make clear that the chairman may participate only in the event that the chairman is an independent director. Moreover, the directors should not be required to report to the chairman following these meetings, but should be able to elect to do so at their discretion.

Succession is not handled precisely as the corporate governance guidelines suggest, but has been conducted with focused and appropriate board leadership. In particular, the use of the Management Development Committee has broadened the board's involvement in an effort that is effectively integrating succession planning and performance measurement.

The directors demonstrate a fairly strong and reasonably consistent understanding of the issues that SJI, SJG, and the non-utility affiliates have been facing in the past several years. The directors showed awareness of major capacity, competitive structure, third-party supply issues, but as a group did not bring to them an evident confidence and expertise in addressing them at any meaningful level of detail. Board structure and operations assure that SJG gets dedicated and specific attention; management routinely makes reasonably complete and detailed presentations on SJG specific financial and operational matters at board meetings.

6. Promoting Board Effectiveness

SJI provides adequate orientation and appropriate updates of baseline materials to directors. SJI uses an effective mix of inside and outside sources to provide director training and education. Dialogue with management is promoted. SJI's use of the AGA/EEI program is proper. Gas-industry issues training has not been a strong focus at SJI, but plans to bring outsiders in to board sessions present an opportunity for adding this element. The training and education documentation and outside sessions that SJI has provided have focused more on governance *per* *se*, than on the unique regulatory and operating characteristics of gas industry participants. SJI should incorporate gas-industry issues training into plans to bring outside experts to board meetings for educational purposes. Financial training has not been a focus, but SJI has added directors already having strong experience in this area. Adding directors with extensive financial experience obviates immediate need for extensive training of existing members.

The SJI Board self-assessment process is well structured at the SJI level; the SJI board carries it out diligently and on a timely cycle. The board uses results to identify and meet governance needs. The process uses organized, specific factors, and measures responses. The SJI self-assessment process's focus on operations at the holding-company level, however, diminishes its effectiveness in assuring that the Board effectively evaluates its performance specifically with respect to utility operations. SJI should add a utility-specific module to the annual board performance measurement process and use it separately for both the SJI and SJG boards.

B. Organization

SJG is organized primarily along functional lines, which is a common utility industry approach. SJG's organization structure includes five principal groupings:

- Engineering and Distribution System Operations
- Treasury, Accounting and Regulatory Affairs
- Customer Care and Administrative Support
- Gas Supply, System Delivery and Control, and Sales
- Corporate Services and Environmental Affairs.

SJI provides certain corporate level services to SJG, as is typical of holding company arrangements. The SJI and SJG complement of officer level positions is reasonable for a company of its size and scope. At the SJI level, the Company has six officers reporting to the CEO: four vice presidents, a vice president and CFO, and a vice president, corporate secretary and corporate counsel. At the SJG level, the senior officers include all but one of those individuals, albeit with somewhat different titles. Five senior officers report to the president and CEO. The SJI and SJG spans of control at the officer level are reasonable.

Some SJG officer positions raise issues of conflict; they combine utility executive responsibilities with high level direction of subsidiaries competing directly with or supplying SJG. The SJI Director of Strategic Business Planning, reporting to an SJI officer, is responsible for collecting and compiling individual subsidiary plans. He also has access to utility marketing plans and information. That SJI officer is also President of SJE. Similarly, the Director of Marketing also reports to the same individual. Marketing may for SJG develop information, analysis, or campaigns of interest to any marketer doing or potentially doing business on SJG's system, including SJE. Additionally, a Director of SJI who is also a Vice President of SJRG reports to a Vice President of SJI who is also the Senior Vice President of SJG Gas Supply, Delivery & Sales. SJI should realign the functional responsibilities of the SJI officer who heads SJE and the SJI officer who is also head of SJG Gas Supply.

C. Strategic Planning

A generally effective strategic planning process exists. SJI initiated the current process in 2000 to integrate with five-year financial planning already being done annually. The intent of this strategic planning process is to integrate comprehensively the strategic and business, service, and financial plans, and to do a comprehensive five-year plan every three years, annually updating in the off-years, and providing a mid-year performance report each year. SJI uses a classically framed process in examining its economic, political, and competitive environment. SJI makes the typical use of mission, vision, and value statements, and segments its business lines, views customer needs, performs a strengths/weaknesses assessment *vis-à-vis* its competitors, assesses its competitors strategies, and determines the strategies SJI needs to employ to compete successfully. SJI uses a generally appropriate, five-year horizon for planning.

Strategic plans do not quantify the dependence of targeted business results on important national, regional, local, and internal factors. Objectives and budget forecasts appeared to be consistent with stated economic and business environment indicators, but showed no linkage between expected results and what numerical level or directional momentum key indicators needed to show to support those results. SJI should increase focus on specific economic environmental indicators most meaningful to its business, and attempt to ascertain causal linkages and numerical levels of indicators needed to underpin specific business objectives or growth targets.

The *tutorial* quality of the strategic planning documents provides material assistance to operational managers and staff in development of their own business and service plans. Liberty also found particular strength in the use of the three overarching questions that SJI planning documents ask and answer; *i.e.*, where should SJI place their efforts, what does SJI bring to the table, and are SJI's capabilities sufficient, present a good set of recurring questions. As SJI develops experience with integrated strategic, financial, business, and services planning, one should expect documents to become more focused and crisp and less tutorial and descriptive, and to employ an exception reporting approach for off-year updates and mid-year progress reports.

The planning documents indicate a general assessment of customer classes and characteristics of competitors, but no in-depth study. All competitor information within the strategic plan was qualitative and general; *i.e.*, not typical of the in-depth, specific information obtainable through diligent market, marketing, and competitive intelligence research. Similarly, the customer information within the strategic plan was also qualitative and general. SJI should selectively conduct more in-depth competitive assessments in order to improve its understanding of how individual competitors or how classes of competitors and customers behave.

SJI involves an appropriately broad range of operational management in strategic planning, but director involvement takes place at a very high level. Broad management involvement supports endeavors to make operational management more accountable. The Board, however, made no comments or recommendations on the documents it examined. Liberty interviews with members indicated that detailed examination of planning or plans is not a major director focus. SJI should encourage more detailed director involvement in the planning process and its key documents.

Liberty saw no formal contingency planning, rolling-forward 12 or 18 month forecasts, or ranged scenarios (optimistic-pessimistic). Forecasts are presented to the end of the year, rather than being a rolling forward 12 or 18 month forecast. The plans also do not show how baseline targets or results will or should be affected by variations in the key assumptions underpinning them. Use of a 12 to 18 month rolling forward way of viewing forecasts, rather than simply viewing the current year, can be helpful in assuring that management continues to spend focused attention on *looking over the horizo*n even when near the end of the *life* of any particular planning document.

SJI is developing a business unit-planning process to integrate with strategic plans. Market-facing businesses units and internal service providers have begun structuring their plans per corporate guidance. The business units discuss important strategic, regulatory, tactical and operations issues, and reduce them to objectives, goals, plans, and at least rudimentary metrics, but progress is uneven. Liberty saw a variety of descriptive text interlaced with issue discussions, competitive positioning, strategies and tactics, and financial information. These plans collectively comprise a *work-in-progress*. The service plans were largely descriptive, and not all had signed service agreements.

SJI should provide for more consistent and amplified business plans, articulating a succinct rationale as to why they have confidence they can achieve their objectives, attempting to link key indicators quantitatively to projections of business and financial results, and setting forth primary contingency plans. SJI should require the businesses and services to prepare their plans according to a template or checklist to improve consistency and usefulness. The process of discussing and determining the contents of a service agreement is an excellent and beneficial exercise for both the provider the recipient to become clear on needed specifics and eliminate non-value added work. SJI should require execution of them for all internal service providers.

The business plans of the market-facing units show attention to SJI's emphasis on customer focus and opportunity identification; the service unit plans show attention to their internal customer needs. Each of the businesses, including SJG, focused on its own business. Liberty observed no substantial reliance on utility resources or operations, apart from gas delivery, and apart from the use of SJG Internal Services for which the affiliates are charged.

The non-utility business and service plans reflect a reasonably cautious approach that mitigates the potential for negative impact on SJG. All business and services plans articulated objectives that fell within the scope of SJI's mission and vision. Collectively, the businesses also expressed reasonably modest growth projections, a preference for testing new ideas on a modest scale before committing more fully, attention to identifying risks and seeking ways to mitigate them, and recognition of the importance of keeping headcounts and other costs controlled.

Most business units did not make sophisticated use of metrics. All the businesses and service organizations should use more structured and comprehensive metrics. Some businesses are well along in defining their scorecards; others are poised to begin articulating their metrics. Some businesses are already identifying individuals for key performance measures. All businesses and service providers should routinely align positions and accountabilities linked to the metrics.

Marina Energy's development of thermal projects represents a major source of expected non-utility growth, capital requirements, and potential business risk for SJI. Liberty therefore focused particularly on planning to support its early project decisions. Marina's activities have been generally consistent with utility concerns and with SJI's mission. Marina studied opportunities and risks before entering its projects, took reasonable efforts to mitigate risks, and made and managed investments and contracts so as not to expose SJG to adverse consequences. Marina has been able to earn a profit, provide business opportunity to SJE, and keep risks at a level appropriate in a utility holding company. Marina and SJI did not bring necessary engineering or construction experience to the types of projects involved, but acted prudently in securing relationships with capable and supportive subcontractors. Examination of the financial analyses for Marina projects showed a reasonable analytical approach, and that the projects contained good profit potential subject to effective implementation. Examination of the financial results confirmed the quality of initial analyses. Liberty found notable the decision to conduct an audit one year into operation of the biggest Marina project, providing thermal services to the Borgata casino.

Liberty's examination of Marina projects was not the sole element of Liberty's review of efforts to assure that SJI utility and non-utility planning recognized the particular importance of SJG to company success and the need to assure that SJG is not exposed to substantial risk. Liberty's other work on this subject determined that the parent-level strategic planning process instituted in 2000 had a positive impact on SJG. The discipline and conservatism that SJI has shown in making non-utility business decisions has helped to smooth the variability in SJG income and to complement it with stable and growing non-utility contributions. SJI's diversification into new businesses has produced strong financial results while the utility has also performed well.

The positive performance of non-utility activities to date has been managed and pursued with an eye toward managing risk. Nevertheless, non-utility operations have grown to a level that requires vigilance in assuring continuation of a cautious approach and recognition of the overriding contribution of SJG to corporate success and the need for it to continue to meet public service responsibilities. It is important for SJI to continue to its emphasis on the need for continuing to improve. Satisfaction with non-utility progress must not be allowed to become an absorption in it, to the exclusion of attention on and resources for the utility. SJI's senior executives continue to show recognition that past success does not guarantee future results and they as well as the unit leaders operate with the clear understanding that care and discretion must be observed in pursuing new opportunities. There has been no loss of utility focus as non-utility operations have succeeded. To the contrary, Liberty found a widespread understanding and acceptance of the special value that SJG has by reason of the strong business fundamentals that characterize its strong service territory.

D. Finance

1. Capital Structure

SJG substantially strengthened its capital structure in 2003 and 2004. It achieved a stronger capital structure by retaining most of the utility's earnings in 2002, 2003 and 2004, and by raising equity capital through the dividend reinvestment plan in 2003 and 2004. The holding company has invested most of these funds in the utility business. In 2003, SJI raised approximately $35 million in new equity, redeemed $35 million of trust-preferred securities, redeemed $75 million of higher priced debt securities, and issued approximately $115 million of long-term debt through its medium-term note program.

Recapitalization efforts increased SJG's equity capital ration to 46 to 50 percent of total capitalization (including short-term debt), and eliminated high-cost debt. SJG's new dividend policy and the $290 million equity floor from the recent SJG rate case should produce continued capital structure strength and an improved credit profile. SJG has established a dividend policy that recognizes this floor, and targeted an equity component of 46 to 50 percent of capitalization on a going-forward basis. SJG had operated through the end of 2002 with a high degree of leverage for a gas distribution company. The utility's equity capital as a percentage of total capitalization was low during this earlier time period, ranging from the mid-to-high 30s.

The planned growth of SJI's non-utility businesses is not expected to greatly change the holding company's financial profile in the next few years. SJI plans to make significant additional capital investments in Marina and it expects the SJE and SJRG businesses to grow moderately. SJI has planned for potential Marina projects that could more than double its investment in thermal and co-generation projects over the next five years. SJI projects that Marina, SJE, and SJRG earnings will grow over the next five years at a rate that will enable non-utility operations to provide 32 percent of SJI's net income. SJI management has stated that it will finance the non-utility businesses under approximately the same capital structure as that of the utility. A continuation of experienced levels of performance by SJI's non-utility businesses would mean that they will not pose a substantial risk to the consolidated financial and credit profile.

2. Financing

The Company has maintained and should continue to maintain effective credit ratings. SJG currently has a BBB+ rating from Standard & Poor's and a Baa2 rating from Moody's. The utility has strengthened its credit profile significantly in 2003 by adding equity capital, redeeming trust preferred stock and by retiring $75 million of higher cost debt. Equity as a percentage of the utility's capital structure has increased to about 50 percent. This ratio provides SJG with a solid foundation. SJG's key credit indicators have strengthened significantly. SJI's non-utility businesses have not significantly increased the risk of the consolidated entity, and in turn, the utility. Rating agencies tend to take a consolidated approach in rating utilities in a holding company structure, with the non-utility businesses influencing the ratings of its utility affiliate. One agency raised concerns about the direction of SJI credit standing after completion of Liberty's final report. Liberty shares the concern expressed about the risk of non-utility operations, but does not see how the data available suggest downward pressure.

SJG's access to capital for utility operations is strong and improving. There is an effective mix of mortgage bonds, medium-term notes and committed lines of credit. The Company has succeeded in reducing debt costs and in moving from uncommitted to committed credit lines. SJI has effectively provided for the long-term debt and line-of-credit agreements for the parent and non-utility affiliates, and has kept them reasonably separate. Marina is the only capital-intensive non-utility affiliate, now and in the foreseeable future. SJI's joint solicitation of credit agreements for SJG and SJI was not ideal, but did produce substantial problems. Liberty believes that future agreements should be solicited and negotiated separately, in order to assure that utility debt costs and other terms and conditions are unaffected, both directly and indirectly, by common consideration with riskier non-utility operations and financing needs.

3. Cash Management

LDCs generally have high levels of short-term borrowing during the period when gas purchases are high and revenue collections have yet to catch up with them. The same is true of SJG, but the Company continued through 2003 to have high amounts of short-term debt even in the summer months. One cause was a significant deferral of gas-cost recovery; another was an intentional decision to go longer on short-term debt to take advantage of low interest rates. Marina also reduced short-term debt in September 2003 by placing variable-rate demand notes.

SJI has properly segregated cash management systems and operations for the utility and the holding company, which represents the non-utility businesses. There is no cash pooling nor are there short-term loans between SJI's non-utility sector and SJG. SJI settles inter-company balances timely, avoiding the potential for cross-subsidization through utility loans to non-utility businesses. SJI issues letters of credit to support non-utility operations. SJI charges fees for this support to its non-utility subsidiaries, which also avoids subsidization of them by SJG. Liberty found that SJG uses a cash forecasting process, but it is too informal. Liberty recommended that SJG establish and operate before the next winter season a rolling cash management forecast similar to that being established for the non-utility entities and SJI. A cash forecasting system that supplies daily estimates of cash positions for 30 to 90 days is important for SJG.

4. Parental Guarantees

Liberty was concerned about guarantees issued by SJI, primarily for SJRG and SJE. These thinly capitalized marketing and trading operations require guarantees to satisfy their counterparties that payments will be forthcoming. If not for the SJI parental guaranties, SJE, SJRG and Marina would have to pay for bank letters of credit or dedicated lines of credit to satisfy their counterparties. Growth in the magnitude of the guarantees and the outstanding payables under them have been dramatic enough to call into question the impact on utility credit. By the end of 2004, outstanding payables supported by parent guarantees exceeded SJI's equity net of the equity floor established in SJG's recent rate case. SJI has not determined the levels at which guarantees or payables under them have a tangible effect on utility credit and therefore costs.

Liberty recommended that SJI compensate SJG when total accounts payable supported by SJI guarantees exceed 80 percent of SJI equity net of the equity floor for SJG (*SJI net equity*). Liberty also recommended a *hard* limit prohibiting such payables from exceeding 150 percent of SJI net equity. Payables have recently run at around 100 percent of SJI net equity, which would permit SJE and SJRG to continue operating at present levels. Liberty recommended an annual payment rate of 0.75 percent, charged quarterly, for guaranteed payables between the 80 percent soft limit and the hard limit. SJG should receive 75 percent of the payment, to reflect its contribution to SJI value. Applying the formula rate to the $56.1 million in payables outstanding at December 31, 2004 would have produced a payment to SJG of $78,891 for the quarter.

5. Utility Credit Insulation

Liberty examined the financial separation, insulation, and ring-fencing of SJG from parent and non-utility finances, risks, and operations. In most areas, Liberty found SJG to be adequately protected. They include: equity maintenance requirements (due to the equity floor from the rate case), segregation of cash management, settlement of inter-company balances, precluding inter-company loans, avoiding pledges of utility assets, financial support, and cash flow for non-utility purposes, making non-utility borrowings non-recourse to SJG, precluding utility credit support or default, and excluding of restrictive covenants in SJG financings.

Liberty did find, however, four areas (the last two of which have been discussed above) where attention is necessary to complete the adoption of reasonably full ring-fencing. First, SJI should secure a separate credit rating for SJI, which has been contemplated for some time. Second, SJI should gradually incorporate covenants protecting SJG in the event of parent or affiliate bankruptcy or receivership. Third, SJI should not solicit or negotiate jointly credit agreements for SJI and non-utility subsidiaries on the one hand, and SJG on the other. Fourth, SJI should seek to determine the level at which parental guarantees have an affect on the cost of utility credit.

E. Budgeting

SJI and SJG use a reasonable planning and budgeting process. SJI's financial planning department has coordinated the Company's business planning and budgeting using the same structured approach and calendar for the past several years. There is adequate board of director involvement in the budget-setting and progress/status monitoring processes. The companies, have, however, been slow in making changes to industry-accepted responsibility-center accounting. The process is underway; other portions of Liberty's audit report recommended changes in the pace and scope of system implementation necessary to support such accounting.

Liberty examined capital and O&M expenditure trends in order to identify any anomalies between the high rate of customer growth and the application of resources to support it. Liberty found no reason, from this overall perspective, to question SJI's commitment to provide SJG with the resources it needs to continue to provide effective and reliable service. SJI/SJG's management has reacted flexibly as it increased SJG's capital expenditures beyond original budgets to realize new-business opportunities. SJG generally invests capital according to its plans; it spends what it budgets and budgets what it needs. SJI/SJG has pursued a robust utility capital program in recent years even as it greatly expanded its non-utility investment. SJG's policy of expanding investment in plant has been the foundation of its ability to accommodate its high rate of growth in customers and use. Later sections of Liberty's report addressed in more detail specific aspects of service delivery, including resource needs unique to observed operations and customer service issues and needs.

F. Accounting and Controls

SJI and SJG use appropriate accounting structures and support them with appropriate accounting organizations. SJG's USofA code classification is reasonable and adequate to provide for cost center and project activity reporting. Liberty had no concerns about accuracy or completeness of accounting records and financial statements. Liberty did, however, have concern about SJG's long effort to implement a new accounting system, based on a vendor-supported *Lawson System*. The prior EDECA of two years ago provided much of the impetus for the development of this new system, which has come unduly slowly. The slow development of the system makes it difficult still to secure and analyze affiliate transaction data although Liberty was able ultimately to do so in this audit. The other problem with the slow development of the new system is that SJG still lacks the effective business management tools that cost-center accounting supported by available reporting tools will bring if it completes system development fully and with dispatch.

SJI uses a different accounting system than does SJG, but has made no clear commitment to the new Lawson system outside SJG. SJI's Solomon Accounting System provides sufficient information to support the analysis of detailed general ledger information, and reasonably reflects costs allocated and booked through the system, but it fails to include cost-center accounting and reporting. Liberty recommended that SJG commit to the completion of Lawson system implementation by the end of the current calendar year and that SJI implement cost-center accounting, preferably through the same system, also this year.

Liberty's review of SJI and SJG accounting policies and procedures found them generally complete and appropriate. SJI, however, needs to assure that vendors bill the correct affiliate. This change will avoid internal retransmission of invoices and provide better control over accounts payable. There are clear policies requiring intercompany balance reconciliation; all entities follow them. SJI should, however, add SJG to the formal requirements, in order to conform to how it already treats the utility. Liberty also recommended making accounting and CAM policies and procedures available to employees electronically, in order to facilitate access to and searches of them. SJI should also begin the practice of requiring all employees, except for senior officers to routinely complete time sheets. In addition, SJI's reliance upon manual time sheets rather than the on-line Lawson time reporting system is inefficient.

SJG's financial statement reporting process adequately discloses inter-company payable and receivable balances on a standalone basis. Liberty also found that SJG's independent audit report reasonably disclosed inter-company balances through footnote references. Again, however, the Lawson system will provide a capability that SJG has as yet not sufficiently exploited. SJG needs to enhance detailed general-ledger and cost-center reporting to provide meaningful reports and analyses. This step is necessary to take full advantage of system capabilities in managing the business more effectively. Similarly, SJI should examine the potential for making the inter-company billing process more efficient through automating major portions of it.

Current procedures and practices regarding work-orders and continuing-property records are sound and effectively implemented. There is sufficient attention to separating asset assignment between utility and non-utility operations and units. However, SJG should use the Lawson system capital asset module to replace its *Lotus Approach* method, and should include continuing-property records and work- order audits in future internal audit plans.

G. System Planning and Design

The report volume addressing Gas Supply contained a detailed analysis of supply planning, which this document summarized earlier. This portion of Liberty's audit addressed other planning and design issues. Liberty found that SJG uses a generally sound process for system planning and design, but does not consider important supply and demand options (discussed earlier in the context of gas supply). SJG uses simulation modeling to support system planning and design processes, and its pre- and post-heating-season operations planning meetings reflect best practices, and mesh appropriately with annual budget cycles. SJG's considerable commitment to hydraulic modeling enables its search for least-cost solutions to system planning issues. Liberty also found that SJG performs audits of gas main extension projects to test the accuracy of the estimates of costs and revenues used in the process for project approval.

H. System Operations

1. Safety

SJG has been successful in reducing total safety incidents in the last five years, but experienced a dramatic increase in lost time per incident. There were no fatalities during the entire period.

2. Growth in Work Backlogs

The BPU requires all utilities to remove groups of meters from service where there has been a failure exceeding the 90 percent confidence level for the sample selected. SJG has not been able to meet its schedule for mandatory meter-change-outs. Its growing backlog contains many meters well past their required removal dates. Of the meters that fail, two-thirds have tested fast, suggesting that two out of three customers affected have overpaid.

Review of compliance and operating reports, the monthly potential non-compliance issues report, and Company databases that track leak repair, regulator maintenance, and valve maintenance indicates that SJG has had difficulty in remaining in compliance with Federal DOT regulations. There have been some instances of non-compliance and SJG has had to undertake late-period actions to address potential non-compliance items. SJG met its new federal compliance requirement to develop a System Integrity Plan for transmission piping. SJG submitted its System Integrity Plan on December 17, 2004. This plan is the first major requirement of the DOT's new transmission pipeline safety policy, enacted in January 2004.

SJG has a growing backlog of its second highest priority, *Grade B* leaks, which are those presenting no immediate hazard, but requiring repair or reevaluation at least every six months to avoid probable future hazard. SJG's data places it in the third lowest quartile of performance, based on American Gas Association survey data. The number of unrepaired "B" leaks older than one year doubled in percentage of total backlog between 2002 and year-end 2004. Since 2000 SJG has repaired fewer numbers of leaks annually. Liberty also found that SJG has been reducing its reliance on proactive (Company-identified) leak detection methods. The number identified reactively (by third parties) grew from 36 percent to 43 percent. Liberty recommended that SJG develop leak repair timeframes that will ensure the more prompt repair of "B" leaks.

SJG has also experienced a declining response to customer leak reports. SJG has not for many years met its goal of a 100 percent response within 60 minutes. Moreover, performance has declined since 2001. Over the last five years, SJG averaged 96.3 percent within 60 minutes. SJG also has a high level of unaccounted for gas. Year 2003 data from the 2004 *AGA Best Practices Benchmarking Study* ranked SJG within the 4th quartile; *i.e.*, 53 of 69 in the study.

SJG began using employees to install new business services in the fall of 2002. These installations displaced work performed by contractors. SJG increased the percentage installed internally to more than 40 percent in 2004, with plans for another increase to 50 percent, in 2005. Street Department employees who perform these installations also typically perform leak repairs. No new employees have been added to make these installations. SJG instead redirected workers from other tasks. This approach leaves fewer employees available for leak repair. Additionally, in the past, Street Department employees supplemented utility workers at peak times. The redirection to new business services also reduces the availability of these workers to help with utility service work. Growing backlogs in leak repair and meter change-out backlogs highlight the effects of redirecting street crews to new business construction, without increasing resources.

Liberty believes that SJG needs to increase its workforce or supplement it with contract labor to address growing backlogs. SJG has accumulated significant backlogs in several areas of deferred workload, which include leak repair and meter age-changes. Growing leak backlogs increase safety risks, and exacerbate SJG's growing percentage of lost and unaccounted for gas. Growing backlogs in meter change-outs mean customers will be dealing with fast-meters for a longer period of time. SJG will be faced with refunding more and more for fast meters.

The growing backlog and reduced flexibility of the workforce suggest that SJG is not sufficiently staffed to optimize distribution system maintenance. Its aging workforce and the recent early retirement program will further reduce staffing. Management suggests there are potential productivity gains, but performance and backlog indicate that SJG faces a significant resource shortage that cannot be solved simply by getting more work from existing resources.

3. Efficiency Improvements

Implementation of the *FieldBook* system will promote work efficiency and effectiveness by providing 24/7 remote access to SJG's maps, main records, service records, and customer location data. Users should have full access to the system before April 2005. At the same time, the same contractor is updating SJG's mapping system to allow as-built maps and information to be automatically input into the network modeling system and the *FieldBook* system. Maps and models are complete and in full use at two divisions and the transmission system. The system will provide significant gains through the reduction of clerical input and support. Additionally, SJG supervisors and managers will have remote access to asset records and maps.

Liberty found SJG's compliance tracking and reporting cumbersome and difficult to use. SJG relies on stand-alone databases to track leaks and valve and regulator inspections. Also, paper files maintained in each division office document installation, maintenance, and inspection of each piece of critical equipment. SJG has only automated the tracking of three compliance areas. Required compliance reports must therefore be manually created monthly, semi-annually, and annually. SJG should develop an integrated tracking and reporting system to help division managers track compliance items and performance. Databases should be added to capture all items mandated by the DOT and BPU. These databases should provide exception reporting, compliance history, and compliance performance. They should be integrated with work management and resource planning systems to ensure that manpower is appropriately forecasted, scheduled, and managed. These databases should also be closely tied to the asset database.

4. One-Call Program

The number of mark-out requests increases in SJG's territory annually. Third-party damage incidents have been falling as a percentage of mark-out requests. The percentage of leaks caused by third-party incidents nevertheless rose in 2004. Moreover, failures even to request a mark-out cause a steadily growing portion of avoidable incidents. Damages due to the failure to complete a requested mark-out remain a significant cause of damage incidents. Liberty recommended that SJG increase its emphasis on and communication of the importance of the *NJ One Call* notification system with contractors and customers. Such a measure should help to reduce the high number of third-party damage incidents in which no call was made to request a mark-out.

5. Revenue Protection

SJG has identified very few theft of service or tampering cases in recent years. The number of cases identified actually declined steadily since 1998. Only two cases were identified in 2003, and only one in 2004. These numbers fall very far below the range of industry experience. Studies have shown that utilities can recover anywhere from $4 to $6 for every $1 invested to recapture stolen or diverted energy, averaging $10 to $20 per customer per year recovery. SJG should pursue a more proactive and aggressive revenue protection program, which incorporates theft of service, losses, billing errors, slow meters, and non-registering meters.

I. Dispatch

Liberty found that SJG's dispatch processes and practices to be sound. They meet and perhaps exceed industry standards. If peak-day sendout approaches peak-day supply capacity, or if curtailment becomes frequent, it may then become important to examine improving requirements estimation before it contracts for the next increment of capacity. Greater precision in this area in that circumstance might serve to defer additional peak-day capacity for a year or two.

J. Customer Services

SJG has experienced an increase in number of customers and calls per customers recently, but nevertheless has made substantial improvement in customer wait times and abandoned calls. The addition of new IVR technology and better allocation of resources have been material contributors. SJG's abandoned call rate stands up well against industry benchmarks. Even so, SJG promises and delivers a higher level of service to SJ Energy Plus than it provides for utility customers. A September 2004 service agreement promises an SJESP customer wait time of less than 30 seconds and an abandoned call rate of less than 5 percent. To meet this goal, SJG has set up priority queuing in its call center to route SJESP calls to the appropriately skilled agents, ahead of SJG customers (with the exception of *I smell gas* calls). Wait times and abandoned calls are substantially lower for SJESP customers than they are for SJG customers.

SJG gets effective meter reading service from Millennium, which has good read and error rates. SJG uses aggressive billing performance goals, and achieves sound performance in billing timeliness, accuracy, and error correction. Effectiveness in collection practices keep uncollectibles to satisfactory levels. SJG processes refunds slowly, averaging a backlog of 90 to 100 person-days; the Company should redirect resources to reducing this backlog. SJG also has a high level of customer complaints, with billing and collection comprising their major sources. This observation is interesting in light of billing effectiveness. SJG needs to better understand why customers are unsatisfied. SJG completed its first CCC survey in many years in 2002. It provided good feedback on service level expectations as well as CCC performance. SJG should measure customer satisfaction on a more frequent and consistent basis.

K. Environmental Remediation

SJG was initially responsible for remediation at 14 manufactured-gas-plant (MGP) sites. One turned out to be the responsibility of another party; another in Atlantic City has been closed. The

Company's MGP program has been carried out in a cost-effective manner. Overall remediation costs per ton vary, as would be expected, and are consistent with those of other well-run programs that Liberty has reviewed. SJG has explored potential remedies carefully prior to beginning field work, and has planned and managed field work carefully after selection of a remediation process. The Company has been responsive and flexible in identifying circumstances; *e.g.*, property redevelopment projects, where stakeholders' common interests in progress can help overcome the differences that might otherwise hinder progress.

L. Executive and Director Compensation

The structure of the incentive-compensation package used for SJI's executives is straight-forward and understandable. SJI uses total shareholder return as the performance measure for its long-term-incentive program. This benchmark is appropriate; it rewards management for their performance for owners, without adjustments, and takes into account SJI's performance against a reasonable group of financial peer companies. The incentives offered to the Company's executives reasonably correspond to SJI's strong outstanding financial performance in the past four years. SJI correctly distributes the cost of the compensation of executives who serve SJG and other companies. The measures that SJI uses in determining executives' payouts under the Company's incentive-compensation program are mostly focused on corporate financial performance and encourage teamwork. The goals of SJI's executive-incentive compensation have had enough *stretch, i.e.,* they require performance to be outstanding to earn a high payout.

SJI's board of directors has used reasonable means in assessing the competitiveness of compensation of the Company's executives. The last major study of SJI's executive compensation showed that the Company's position was appropriate; no major changes in structure were made thereafter. SJI's relative position among New Jersey utilities is competitive, although this measure is not robust, given the small number of peers.

Director compensation structure and levels are appropriate. Directors now receive compensation below the median of the 2003 peer group that SJI uses. This position is appropriate; SJI is smaller than most of the companies in the group used in that analysis of director compensation. SJI uses a three-year vesting provision as part of its restricted-stock program for directors. This approach helps to assure that directors are committed to serving SJI's stockholders.

Administration of executive and director compensation programs is also generally reasonable. However, administration should fall under a human-resources professional, rather than the corporate counsel/secretary. It is reasonable, however, for the counsel/secretary to administer the compensation of outside directors. SJI has appropriately limited its expenditures on its compensation consultants, and the distribution of consultant costs is reasonable.

There is a two-year consulting agreement with the SJI chairman and immediate past CEO. This agreement was an acceptable method for smoothing the transition to new leadership. Renewal, however, does not appear to be necessary. Moreover, SJG has borne an unreasonably high percentage of the cost of this consulting arrangement. The work scope does not show that the agreement serves SJG's operations. Costs should be retained at SJI. SJI also has employment agreements with eight officers: SJI's CEO and vice presidents of SJI, most of who are top officers of SJG as well. If there is a change in SJI's control these agreements extend for three years from the time of that change. The agreements are typical of those found in the industry.

SJI requires executives and outside directors to own a minimum amount of common stock. This policy helps align the interests of executives and stockholders. SJI's management appropriately monitors the progress of the Company's leadership in meeting the stock-ownership requirement.

M. Information Systems

SJG has the full complement of the basic information-technology equipment and software that a utility needs to meet the needs of its operations. IS regularly prepares well-documented plans, and accomplishes much with a small staff. SJI has been slow in migrating to newer personal-computer software and equipment. This situation typifies a broader problem that SJI has in information technology; *i.e.*, chronic under-spending and bias against buying software packages (most of SJI/SJG's legacy systems were programmed in-house). For example, SJI participated in a utility-run benchmarking study that showed its 2001 annual spending of $2,700 on information technology *(IT)* cost per end user to be the lowest (the survey average was $6,500).

SJG has taken sufficient steps to be prepared for a loss of its information-technology infrastructure. Liberty found, however, that SJI does not have plans to pursue important new systems. Liberty therefore recommended that the new IS steering committee makes its first order of business a comprehensive study of SJG's needs for more distributed systems and enhancements to existing systems, unconstrained by stringent budgetary limitations.

N. Legal Services

The structure of legal resources is effective, given SJG's size. SJG makes as much use of internal legal resources as would be expected for its size. Advances in retaining and managing outside counsel have been made, but are not complete. Outside counsel provide routine billings that allow a meaningful assessment of the work activities and levels billed. Invoices show routine review and assignment of costs. The recent effort to test the use of competitive solicitation for services is noteworthy. It shows that benefits can be gained even without switching providers.

The goal to provide more central coordination of outside counsel retention and management is sound, but has not advanced sufficiently far. A number of departments continue to retain their own counsel and manage them. SJI should centralize responsibility for retaining and managing outside counsel to bring a more formal structure to the process, to assure that agreements with such counsel are optimum, to assure that internal legal resources have a role in judging past legal performance and its relevance to future engagements, to promote the greater use of competitive solicitations for legal work, and to make clear to outside counsel that billings must bear the scrutiny of persons with an understanding of legal work activities and requirements.

There should be greater diligence in allocating SJI legal costs. There is regular attention to assigning/allocating outside legal costs by particular matter. This attention constitutes a strength. However, it is of concern that such a significant portion of outside legal bills to SJI in the past two years were assigned solely to SJG, instead of to all benefiting entities. The net effect of the error is small, considering SJG's dominance in size. Nevertheless, the errors underscore the need for greater diligence.

V. EDECA Standards

Liberty performed a detailed audit of performance under the affiliate standards (*Standards*) that the Board has adopted to enforce the New Jersey Electric Discount and Energy Competition Act, N.J.S.A. 48:3 -49 *et seq*. (*EDECA*). Liberty addressed the cost allocation and assignment standards in its audit of affiliate relationships and transactions, which this document has already summarized. Liberty divided the audit work addressing EDECA into seven categories:

Retail Competitive Services	Standards Administration	Guidance and Training
Non-Discrimination	Information Disclosure	Separation
	Follow-up From Prior EDECA Audit	

A. Retail Competitive Services

SJI's subsidiaries provide the following products and services:

- South Jersey Gas (SJG)
  - Retail gas sales
  - Emergency heater repair service
  - Relocation of utility facilities
  - Other tariff-related services
- South Jersey Energy (SJE)
  - Retail gas and electricity sales
  - Energy services
- South Jersey Energy Services Plus (SJESP)
  - Heating and cooling system installation
  - Appliance service
- Marina Energy (Marina)
  - Energy project development
  - Energy plant management and operation
- South Jersey Resources Group(SJR or SJRG)
  - Wholesale gas sales
- Millennium Account Services (Millennium or MAS)
  - Meter reading services
- AirLogics, LLC (AirLogics)
  - Air monitoring services

SJG considered appliance services to be the only competitive service SJG provided. SJESP acquired that business in September of 2004. SJESP had operated a heating and air conditioning installation business since its inception in June 2003. SJI listed only three retail competitive services provided by affiliates during the audit period:

- Retail gas sales by SJE
- Appliance services by SJESP as of September 2004
- Emergency heater repairs by SJG through the July 2006 transition period ordered by the BPU in connection with the transfer of SJG's appliance service business to SJESP.

Liberty concluded that SJI erred in not including a number of additional operations of SJI subsidiaries as retail competitive business segments (RCBSs):

- Energy services provided by SJE
- Heating and cooling system installation provided by SJESP
- New Marina energy product development associated with providing cooling, heating, hot water, and electricity to the extent not intended for resale by Marina customers
- Management and operation of existing energy plants by Marina for customers to the extent that those customers do not engage in the resale to others of the cooling, heating, hot water, and electricity produced by those plants
- Meter reading services by Millennium
- Air monitoring services by AirLogics.

All these services consist of retail services provided in New Jersey markets where third parties compete to serve similar end users. Despite taking a different view of the definitional issue, SJI agreed to the treatment of businesses operated by SJE, SJESP, Millennium, and AirLogics as within the scope of the EDECA standards. Liberty did find merit in SJI's argument that it would be problematic for separate senior executives, such as the CEO, from operation of new non-utility enterprises, because of the need for cost and risk oversight, for example. Particularly for a smaller company, there is reason to provide for common oversight of SJG and non-utility operations like those of Marina by the CEO, CFO, and general counsel. Liberty did not endorse a blanket exception to the standards, which could ultimately undercut the goals of officer separation standards. Liberty did, however, conclude that a smaller company might be able to persuade the BPU, on an affirmative showing, to grant an exception for these three positions for a reasonably limited period of time early in the development of such new enterprises.

B. General Administration of the Standards

SJI and SJG appropriately involve in compliance administration the full range of work groups whose day-to-day work the Standards affect. These groups take responsibility for Standards compliance and work under a common plan to provide training and communication to support it. However, ultimate responsibility for establishing a consistent interpretation and approach to compliance and for assuring it is not sufficiently centralized. Liberty recommended that SJI/SJG assign the Corporate Counsel or the Vice President of Rates and Regulatory Affairs as compliance director, with the responsibility for assuring senior executive management and the board of directors that Standards compliance planning is adequate, that there exist adequate controls to assure compliance, and that compliance is adequate in all material respects. Liberty also recommended that this new compliance director provide for regular planning and execution of analyses and audits of cost assignment and allocation and of other material elements of the Standards, planned in conjunction with Internal Audit's yearly work planning cycle, in order to take advantage of Internal Audit's risk assessment capabilities and to coordinate resources effectively. The compliance director should also be responsible for addressing complaints or concerns from customers or competitors about compliance with the Standards. Assuring compliance with the standards would be benefited by including on the SJI and SJG web sites the ability of customers and competitors to address complaints and concerns to SJI and SJG.

Liberty examined the EDECA compliance plan, and found it generally to be adequate. It is broad in its scope and for the most part provides employees the guidance they need to relate the requirements of the Standards to their daily job requirements. The audit report did make a number of specific recommendations for improving its clarity, completeness, and accuracy.

SJG was not rigorous in making the required filings of ASB financial information during the audit period. SJG made some of the filings required, but missed several. The information filed also failed to include some required items of information. To some extent, SJG's failure to meet the requirement was mitigated by the disclosures of information that it made in the context of the transfer of its ASB to a separate affiliate.

C. Employees Guidance and Training

SJG provides a focused and reasonably comprehensive approach to training utility employees in Standards compliance. The training materials are comprehensive, focus on key Standards provisions that relate to everyday employee performance, and provide specific guidance. All utility employees affected by the Standards get training that tells them how the Standards affect their work performance and what they need to do to comply. The Company reasonably assures that all employees get timely training. Its use of a regular cycle constitutes a particular strength. The program would be enhanced by a brief refresher in the off-year of the two-year cycle used.

SJG does, however, need to conform its training to an expanded definition of what constitutes an RCBS. SJI also needs to assure that SJE provides EDECA Standards training to its employees, given the number of times that SJE activities have conflicted with Standards. Particularly concerning confidential information, SJI and SJG should also assure that vendors working for multiple SJI entities avoid conduct that could lead to a sharing of information.

D. Non-Discrimination

1. General Compliance with the Standards

Section 14:4-5.3 of the standards contains 17 sections prohibiting various forms of discrimination by SJG in favor of an RCBS. Liberty examined compliance with each, and found that SJG operates generally in compliance with them. The areas of compliance include:

- SJG did not during the audit period represent in its print or television ads or in any other written customer communications that its PUHC RCBS or the customers of the PUHC RCBS would receive any type of preferential treatment.
- Liberty's examination disclosed no evidence of actual favoritism toward an RCBS. Liberty notes that the manner in which SJG routes, processes, and fulfils requests for customer information comprise a notable strength in their ability to assure that RCBSs do not gain access to customer information that is protected by the Standards.
- Liberty's review found no pattern of price discrimination in favor of affiliates with respect to capacity or gas-supply transactions covered by this provision.
- SJG did not offer a discount, charge waiver, discriminatory tariff enforcement, favorable utility service-order processing, or customer assignment for the benefit of an RCBS.
- SJG did not specify or imply in its customer communication or web site the tying of the provision of utility goods and services to the taking of products and services from its PUHC RCBS; Liberty found no evidence of any such tying.

- The planning processes of SJG and the RCBSs of its holding company are reasonably distinct and separate. Liberty found no indication that the planning processes serve as a conduit for the sharing of information that this provision of the Standards addresses.
- The listing of third party suppliers provided in response to customer requests does not highlight any supplier, and meets the requirements of the Standards.

2. Compliance Exceptions

Liberty did find, however, five occasions or situations in which SJG did fail to meet the non-discrimination requirements of the standards:

(a) SJI's web-site created a general implication of preference by discussing relationships and common endeavors by SJG and SJE without the required disclaimer. Liberty recommended that the web-site cease promotion of common activities and include the disclaimer.

(b) SJG made services available to RCBSs without complying with the open availability requirements of this provision. It allowed Millennium, which reads its meters to provide marketing services (hanging marketing materials promoting SJE while reading SJG meters). Millennium did so in a manner giving at least the implicit imprimatur of SJG. Moreover, instead of complying with the obligation to make similar services available to others, Millennium, SJG's contractor for meter reading and an affiliate, became a marketing partner of SJE and agreed to an explicit prohibition on services to anyone who competed with SJE.

(c) SJG assisted another RCBS in customer enrollment, marketing, or business development. SJG allowed SJESP to provide 12-month SJESP service contracts as part of SJG's heater-conversion promotion efforts in 2003 and 2004. This offering did cease when SJESP took over the appliance-service business. Nevertheless, with an application pending for the approval of that transfer, offering agreements for such a long duration clearly had the intent of assisting SJESP, an RCBS of SJG's holding company for longer than SJG intended to operate the business.

(d) SJG did not post the availability of billing and receivables services for marketers. With one possible exception, however, it has succeeded in keeping marketers aware of these services. SJG has not made a general announcement of billing and receivables purchasing services, a core service to marketers, since 2000. SJG also did not post the availability of a variety of other, less standard services provided to RCBSs; most involved the use of customer-information systems.

(e) SJG has routinely made known to third parties the general types of capacity and gas-supply offerings available, but third parties had to contact SJG to learn specifics and negotiate price. These postings did not provide any transaction-specific information. Third parties could not use the postings to evaluate a specific transaction, nor could they determine whether they ultimately achieved, through negotiations, similar terms and conditions as those provided to affiliates.

E. Information Disclosure

1. General Compliance with the Standards

Section 14:4-5.4 of the Standards contains 11 sections limiting various forms of information disclosure by SJG for the benefit of an RCBS. Liberty examined compliance with each, and found that SJG operates generally in compliance with them. The areas of compliance include:

- SJG appropriately limited outside release of customer proprietary information during the audit period to cases where there was prior authorization of the customer.
- SJG applied adequate processes to protect customer proprietary information from inappropriate internal release during the audit period. SJG applied them in a manner that provided for proper authorization and limitation in the information ultimately provided.
- The third-party supplier lists that SJG used during the audit period complied with Standards precluding the highlighting or emphasizing of an RCBS.
- During the period of the audit, SJG did not provide or release to an RCBS non-public information from any unaffiliated supplier.
- During the audit period SJG did not solicit unaffiliated supplier non-public information for release to affiliated entities.
- SJG, its holding company, and affiliates were able to provide all requested agreements and transaction documents during Liberty's transaction testing activities, demonstrating compliance with record-keeping requirements.
- SJG provides adequately for the retention of records of transactions involving it and its holding company or holding company RCBSs.

2. Compliance Exceptions

Liberty did find, however, an occasion when SJG failed to meet information-disclosure requirements. SJG made available to an RCBS (SJESP) a list of SJG's ASB *Service Sentry* customers while SJG still ran that business (*i.e.*, prior to September 2004). SJESP used that list to generate a direct mail list for equipment installation services that SJESP was performing.

F. Separation

1. General Compliance with the Standards

Section 14:4-5.5 of the Standards contains 21 sections prohibiting various forms of discrimination by SJG in favor of an RCBS. Liberty examined compliance with each, and found that SJG operates generally in compliance with them. The areas of compliance include:

- SJG, SJI, and the non-utility RCBSs of the holding company comprised and operated as separate corporate entities.
- SJG, SJI, and non-utility RCBSs kept separate books and records.
- SJG kept books and records in accordance with USOA.
- SJG, SJI, and affiliates made all books and records requested available promptly for inspection. Liberty found cooperativeness in this respect to be a particular strength.
- There were adequate means to assure controls on computer and information systems in accord with the requirements related to the sharing of space, services, and equipment.
- There were no joint purchases associated with merchant functions.

- SJG complied with requirements for pricing and reporting of joint purchases.
- Liberty found no indication of promised or preferred treatment by SJG should a customer do business with an RCBS.
- SJG did not provide advertising space for its PUHC or PUHC RCBSs in utility billing inserts or other written customer communications.
- SJI/SJG took particular care in assuring separation of Company booths at the many trade fairs, conventions, and marketing events in New Jersey.
- SJG did not fund or support R&D or advance technology efforts that benefited an RCBS.
- There was no sharing of employees or assets covered by this provision of the Standards.
- Outside director separation met the requirements of standards, as does insider director separation, with the exception of Marina. The Marina exception existed because SJI did not consider Marina to be an RCBS.
- SJG made required reports about employee transfers during the audit period, but not routinely on a timely basis, and not in a readily accessible manner.
- No employee retransferred back to a former position within a year of initial transfer.
- SJG has reasonable controls in place to prevent prohibited exchanges of information when employees transfer among SJG and affiliates.
- Most of the material audit-period asset transfers initially reported by SJG came after BPU review and approval, upon consideration of the value and cost of the assets involved.
- SJG did not provide for structured controls over asset transfers during the audit period, but has recently adopted a procedure that does so.

2. Compliance Exceptions

Liberty did find, however, seven occasions on which SJG did fail to meet the separation requirements of the standards.

(a) SJG made joint product or service offerings with SJE and SJESP during the audit period; other market participants did not have the required opportunity to participate. These offerings were as described in the non-discrimination exceptions noted above.

(b) A structural conflict in the design of SJG's marketing organization causes inherent difficulties assuring adequate separation. The head of SJE supervises the marketing work that an SJI organization does for SJG. The head of SJE, who is also an SJI vice president, acknowledges that he has access to SJG marketing information. SJI should structurally separate the marketing and sales functions of SJG and its RCBSs.

(c) SJI has specifically sought to transfer the goodwill associated with its utility operations through the design and use of marks that have virtually identical pictorial elements and similar name elements. SJG and the RCBSs of SJI make significantly more extensive use of common logos and marks than do the other holding companies with New Jersey utilities. The web sites of SJE, SJESP, and Marina make use of the common logos and marks, some promote the connection between them and SJG, and all fail to provide the required disclaimer. SJI is unique among utility-affiliated providers of retail energy and appliance installation and maintenance services in failing to use the disclaimer on the pages of its retail affiliates. Moreover, the SJE web site creates a number of connections between SJG and itself. The RCBSs do not consistently use the disclaimer in marketing and sales materials, and those provided are sometimes not conspicuous. SJI has, like the electric utilities that Liberty audited in the last EDECA cycle, failed to tackle the difficult issue of business cards and letterhead.

(d) Some advertising plans and activities linked SJG, ASB, and SJE advertising and the SJI golf outing constituted joint advertising or marketing. In addition to comprising the kind of activity that this provision restricts, the golf outing was entirely funded by SJG, despite the benefits it produced for the RCBSs, whose customers attended.

(e) While facially compliant with officer-separation requirements, Liberty found two problems with the officer structure. First, technically, SJI ended a case of non-compliance with this provision by replacing an SJRG officer. The incumbent retained his SJG role, took on an executive position with the holding company, and relinquished his SJRG position. However, his replacement in the SJRG role reports to him. In effect, therefore, he still has executive responsibility for SJRG. Second was the structural conflict, noted above, involving the President of SJE's responsibility for the SJI organization that performs marketing work for SJG.

(f) SJG leased equipment to AirLogics and later sold it the equipment without prior examination of book or market price. The sale price of $300,000 was at less than market price.

(g) There were significant errors in calculation of lease-related costs. First, SJG inappropriately bore a portion of the costs of unusable, empty, and common space that should be allocated to affiliates that occupy premises for which SJG pays. Second, SJG's use of dated costs to calculate its charges to affiliates for occupancy of premises inappropriately subsidized non-SJG occupants. Third, SJG failed to include investment costs in its charges to affiliates for occupancy of premises for which SJG pays. Fourth, SJI failed to make charges for rent associated with the labor costs of employees whose time is directly charged or allocated to another affiliate.

G. Follow-Up From Prior EDECA Audit.

Liberty examined responses offered and actions taken by SJG in response to the previous EDECA audit. Liberty found that the Company took substantial compliance actions. Any issues remaining from that audit were addressed in Liberty's detailed examination of affiliate relationships and transactions and of compliance with EDECA standards. The specific conclusions reached by Liberty were as follows:

- The Company made substantial changes to its cost allocations, in order to address recommendations V.B.1. and V.B.2. of the prior EDECA audit.
- SJI made substantial reorganizations intended to place at the holding company level many services that it provides in common for utility and non-utility operations. Liberty did not consider the establishment of a service company to be necessary or appropriate for SJI.
- The BPU Order approving the transfer of SJG's appliance service business to affiliate SJESP generally addressed a number of recommendations of the prior EDECA audit.
- The Board's Order adopting a stipulation in SJG's recent rate case provided for an appropriate resolution of the Millennium recommendations in the prior EDECA audit.
- SJE ceased the practice of compensating SJG employees for referrals of residential customers.